7: Gt. Brit., Colonial Office G-3 (1949-50) 1951 MM1 Aden
Hadhramaut mm2

871 under the auspices of the British Council. At the end of 1950 five Hadhrami students at Bin Khaldun School in Syria gained the first five places in the final class results for the year.

Twenty-two Qu'aiti pupils are now studying outside the Hadhramaut, nine being in the Sudan, five in Syria, four in Egypt and four in Iraq. The scholars in the Sudan are being financed by the Qu'aiti Government, while the remainder are being paid for from the Mukalla Charitable Fund. There are seven Kathiri students abroad, two being in Iraq, and five in Syria. Two of these students are being financed by their parents, while the rest are supported by the Tarim Brotherhood.

HEALTH

Western Aden Protectorate

744 Two outstanding developments have characterised the growth of the Protectorate Medical Service in 1949 and 1950. First, the ten most promising dressers were called in from their tribes in the mountains, deserts, valleys and coasts of the Protectorate for a year's course in curative and preventive medicine at the Keith Falconer Hospital, Sheikh Othman. Secondly, the first major malaria control scheme has been successfully undertaken at Abyan. This area which was once a death-trap due to malaria is now virtually rid of the anopheline mosquito. This enterprise was financed by a grant under the Colonial Development and Welfare Act in 1949 and has subsequently been carried on by local funds.

Major tours were made to the Dhala', Dathina and Beihan areas besides the usual routine visits to the twenty dispensaries.

164 Malaria, dysentery, tuberculosis and malignant malnutrition with its
743 associated conditions remain the most prevalent diseases. Trachoma
758 is very prevalent at the desert end of Beihan. There is very wide scope for nurses and lady doctors who can stand the rigours of the road, who will learn Arabic and who will take to heart the welfare of the women and children. On the whole the dressers are doing a good piece of work amongst their own tribes. There are six dispensaries between 3,000 and 5,000 feet up, three dispensaries in the mountains at 7,000 ft. or more—two of which are reached on foot and one by air—and the rest are in Subeihi, the Wadi Tiban, Abyan and the coast.

Many patients come too late for treatment, but after one has seen the difficulties of the roads it is astonishing that so many of them come at all, and it is for this reason that the dressers visit the villages from their dispensaries and the medical officer and nursing sister visit all areas as much as possible.

744 Recently a visit was made to Mukalla and Sai'un to advise about public health work, but the demands of the Western Aden Protectorate are so great and the staff so small for its needs that there is little time left for the Eastern Aden Protectorate.

In 1949 when the Protectorate Medical Officer was on leave, Dr. R. B. Smith, of the Keith Falconer Scottish Mission Hospital, acted in an honorary but full-time capacity.

7: Gt. Brit., Colonial Office G-3 (1949-50) 1951 MM1 Aden
Hadhramaut mm2

A case of smallpox in Audhali area was immediately and effectively dealt with by Dr. Affara, also from the Keith Falconer Scottish Mission Hospital, and 4,500 people were vaccinated. 744 751

Eastern Aden Protectorate

In the Eastern Protectorate, advances in medical and public health services were retarded in early 1949 by lack of staff. It was not until late in 1950 that the staff situation was relieved by the arrival of a medical officer from India for the Kathiri State and of a German lady doctor from Germany for Shibam. 744

With the obvious exception of cases of scurvy and malnutrition during the famine of 1949, there was a very mild outbreak of small-pox in Mukalla in February and March, 1949, and sporadic outbreaks of malaria in particular in the coastal areas, and the health of the population has been reasonably good in the past two years. [164]

Stringent and vigorous anti-malarial measures were started in January, 1950. All pools, including the source of water supply in the vicinity of Mukalla and Shihr were oiled or stocked with larvae-consuming fish, and water collecting tanks were closed and cleaned out weekly.

An additional sanitary inspector in Mukalla was appointed during 1950.

In October, 1950, Dr. R. B. Smith, Acting Protectorate Medical Officer, was invited to visit Eastern Aden Protectorate and his recommendations on the best methods of improving and safe-guarding public health are being implemented.

In November, 1950, four soldiers of the Mukalla Regular Army and two of the Kathiri Armed Constabulary proceeded to the Keith Falconer Mission Hospital, Sheikh Othman, on an anti-malarial course for three months. 744 759

HOUSING

No greater contrast could be imagined than exists in the houses of the Aden Protectorate. 342

The most elementary are the goat-hair tents of the nomadic people, and the even more primitive shelters of some shepherds, consisting only of a mat hung on poles, or spread over a branch of a bush.

The simplest form of house for the settled population, or those who stay for some period in a place to work at harvest time, is a kind of inverted nest of brush-wood, with a little matting incorporated in places. This provides privacy and shelter from the sun, though not of course from rain if it falls, or from the all-pervading dust storms.

The most common type of permanent house is built of mud-brick in the plains and rough stones bound with mud in the hill districts, and more rarely of squared stones. Rooms are generally small (long timber being very scarce) and dark, affording a relief from the glare outside; ventilation is usually adequate and the thick walls provide

8:Gt. Brit., Colonial Office G-3 (1951-52)1954 MM1 Aden
Hadhramaut MM2

yet afford to offer pensionable service. Conditions of employment for a qualified teacher are therefore inferior to those obtainable, even in teaching in the Colony.

Principal Events

The greatest change in the period under review was the closing down in March, 1952, of the Aden Protectorate College for the sons of Chiefs, a boarding school of primary standard which has been running for 17 years in the Colony. The College served a useful purpose and gained a high reputation in its time but was too small to be run economically. It has now been superseded by the primary schools in the various districts of the Western Protectorate.

Work on an intermediate boarding school at Zinjibar in the Western Protectorate began about the same time. The new intermediate school, which will take another three years to complete, forms a vital link between the primary schools and the Aden and Technical Colleges.

HEALTH

General

Protectorate health statistics are not yet available, though in places such as Tarim recent local studies show an infantile mortality rate of 439 per 1,000 live births, a rate rather greater than those previously reported for Mukalla and parts of the Western Protectorate.

Diseases

Important causes of sickness in the population are malaria, the dysenteries, ulcers, trachoma and conjunctivitis. Less obtrusive are pulmonary tuberculosis, bilharzia of both urinary and intestinal types, guineaworm (in patchy distribution), leprosy, dermal leishmaniasis and the common venereal diseases with, in places, what appears to be either yaws or bejel. In areas where night-soil is used as manure for salad vegetables round-worm infection is common. Where, as in the Hadhramaut towns, rigid purdah still obtains, ostemalacia, obstructed labour and puerperal fever are of relatively frequent occurrence. Through failure of the capricious rainfall or floods in the winter months, famine and its associated subnutrition are an ever present threat. In certain Western States the consumption of qat (*Catha edulis*) is a cause of subnutrition and affections of the digestive tract.

Important causes of death in both young and adults are malaria and the dysenteries, and in adults pulmonary tuberculosis.

Prevention and treatment are provided by mobile health units, static health units (previously called dispensaries) and hospitals. Prevention is furthered by lectures, demonstrations and film shows to teachers and local administrators, and by emphasis in the training of subordinate technical staff on the preventive aspects of medicine, more particularly cleanliness, insect control, balanced feeding and the values of local foodstuffs. A series of propaganda leaflets has been planned and the first one—on malaria—issued to the public. An effort is being made among communities remote from hospitals and health units to market at controlled prices insecticides, malarial remedies and sulphamezathine in small containers with instructions in Arabic.

8:Gt. Brit., Colonial Office G-3 (1951-52)1954 MM1 Aden
Hadhramaut MM2

Staff Institutions and Development

Health Service staff, expenditure on health, and the number of hospitals and health units are shown in the appendix to this chapter.

Preventive measures are being more widely used. Prominence in malaria control is given to residual spraying of habitations with water dispersible BHC and, in prevention of bowel infections, to waste matter disposal and rebuilding of privies. Propaganda is also being increasingly used.

Research has been limited to finding out certain local food values and the distribution of certain vectors of disease. *Bulinus* and *Planorbis* foci are being searched for and plotted. Important mosquito species are *A. gambiae* on the littoral and *A. sergenti* in the highlands. *Aedes aegypti* is found widely distributed.

HOUSING

No greater contrast could be imagined than exists in the houses of the Aden Protectorate.

The most elementary are the goat-hair tents of the nomadic people, and the even more primitive shelters of some shepherds, consisting only of a mat hung on poles, or spread over a branch of a bush.

The simplest form of house for the settled population, or those who stay for some period in a place to work at harvest time, is a kind of inverted nest of brushwood, with a little matting incorporated in places. This provides privacy and shelter from the sun, though not of course from rain if it falls, or from the all-pervading dust storms.

The most common type of permanent house is built of mud-brick in the plains and rough stones bound with mud in the hill districts, and more rarely of squared stones. Rooms are generally small (long timber being very scarce) and dark, affording a relief from the glare outside ; ventilation is usually adequate and the thick walls provide insulation against the heat. Roofs are universally flat, and used for the recreation of the women who keep purdah, and for sleeping in the summer.

The farmhouse of the tribesmen is little removed from its earlier function of a fort, and even in large towns it is unusual for the ground floor (often used as a stable) to have more than loop-holes, windows being reserved for the upper storeys. But the upper part of a house is frequently decorated with whitewash, and in some cases most intricate and delicate patterns are created in plaster-work and whitewash, occasionally touched with blue or other colours. Sanitation is primitive.

The cities of the Hadhramaut have tall mud-brick buildings; nearly every house in Shibam is from five to seven storeys high; and the wealthy Seiyids and Sultans live in veritable palaces which are remarkable not only for their size and cost but for their taste and beauty.

10:Jacob G-3 (no date) 1925 MLI Yemen ML-1
Had Hramaut MM

000 the Imam of Yemen. Now he is not holding Hodeida, and he has not got a proper sea outlet. I am myself an ex-seaman, and have had ample opportunities of knowing the coast of Yemen and other parts of Arabia. I think that difficulty (over which the Imam of Yemen is now hung up) of not having a proper sea outlet to his wonderfully wealthy country could easily be repaired. It is most unfortunate that we make all sorts of endeavours in other ways to please the Arabs but fail in our opportunities to do so, whereas with a little personal knowledge we could assist them very much. I am speaking as a seaman. There are at least two very good ports for outlet to Yemen trade. One of them is the ancient port of Mocha. If there are any seamen here they will say, of course, that Mocha is no longer a good seaport. But it can be made into one.

I was very glad to hear Colonel Jacob say that if he could help, Mocha was going to be developed; in my opinion it should be developed. Another port is Al Khokha.

Colonel Jacob told us a little bit about the Yemen Light Infantry; well, I think he painted things rather lightly. I think that the Yemen Light Infantry is of supreme importance to the British, and I only hope that people will realize the real importance of the Yemen Light Infantry, that brings a personal touch to the Arabs instead of too much of this confounded paper work that goes on and trips things up.

Another thing Colonel Jacob told us of was some of the improvements we could carry out in our own port of Aden. I think those suggestions were very interesting, but I should like to add another suggestion. We have held Aden about eighty years, so far as I know. The extraordinary thing is that we have no hospital to which the Arab women of the interior can come. We have not supported the Arabs to the slightest extent in that matter. People may say that they can go to the Keith-Falconer hospital—which is, of course, a private enterprise, not a Government enterprise at all—but as everybody who knows the Middle East will realize, it would be extremely difficult for an Arab woman to go to a hospital that is attended by men and is almost essentially a man's hospital. It is rather extraordinary that we have held this place for eighty years and have done so little for the people. In almost every civilized community the first thing we do is to give first aid to the sick!

000 I do not want to touch on lugubrious subjects, so I will end my short remarks by telling you that Colonel Jacob gave you a little fable which is, as a matter of fact, perfectly true. He said that when you go to the eastern end of Socotra the women are said to be very beautiful and you have to avert your eyes. I have been there, and I know that you have to avert your eyes, because the women throw stones at you, and they are awfully good shots! (Laughter and applause.)

65:Simmons et al G-5 (1941-1961) 1964
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744 ent in the dairy cattle of the Colony, but
834 the rate of infection is believed to be low.

HEALTH SERVICES AND MEDICAL FACILITIES

Health Organizations

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744 Responsibility for the health of the civil-
667 ian population in the Colony resides in its Medical and Health Department, which is administered by a Director of Medical Services, with headquarters in the town of Aden. He is advised on matters of policy by the medical staff in the Colonial Office in London. The department is divided into medical, public health and port health divisions. The functions of the medical division involve the maintenance of hospitals and dispensaries and the conduct of a school health program. The public health division undertakes mosquito and rodent control services, and supervises the sanitation in the townships, while the port health division is concerned with the enforcement of quarantine regulations and the medical care of visiting seamen.

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744 No formal health organization exists in
667 the Protectorate, but a degree of co-ordination with the Colonial services in Aden has developed within recent years. In Eastern Aden Protectorate, medical care facilities are supported by the sultanate governments or by local rulers, with the guidance and advice of an Assistant Director of Medical Services, who is peripatetic, but usually works from a base at Mukalla. A qualified medical officer is stationed at Mukalla, the seat of government of the Qu'aiti Sultanate. With the exception of a dispensary in Lahej, which is financed by the Sultan, the medical services in Western Aden Protectorate are carried on by the British authorities, in co-operation with the Church of Scotland mission at Sheikh Othman.

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747 Local voluntary organizations participate in the health activities of the Colonial government. The Aden Nursing Association contributes to the support of nursing serv-

Diseases Spread by Arthropods

Malaria. Little or no indigenous malaria exists at present in the Colony. From 1,000 to 2,000 malaria patients are treated each year in the civilian hospitals and dispensaries, but, with the exception of occasional cases of questionable origin, the infection has almost invariably been acquired outside the limits of the Colony, usually in the interior. Until recent decades, malaria was highly endemic in the oasis of Sheikh Othman and surrounding villages, and sporadic outbreaks were experienced in the town of Aden. Anopheline control work was initiated in 1909 and extended on a colony-wide basis in the 1930s. As a result, the disease was early eliminated from Aden, while its prevalence was progressively reduced in Sheikh Othman. The number of local cases treated at the Keith Falconer Mission Hospital declined from almost 2,000 a year in 1907 to zero in 1950. The last outbreak of malaria was recorded in 1943 among the transient laborers living in *kutcha* hut settlements in Sheikh Othman. At that time, *Anopheles adenensis* (— *A. culicifacies adenensis*), the principal vector, was found breeding in the soakpits. Antianopheline measures are carried on continuously in the Colony and adjacent sections of the Protectorate, and vector species have been eradicated almost completely.

Malaria occurs in most portions of the Protectorate, exclusive of the desert regions and the mountainous areas at the higher elevations. In the 1939-40 survey of Western Aden Protectorate, all gradations of endemicity were encountered. In general, the infection was hyperendemic in the vicinity of perennial streams and moderately endemic in villages around wadies which remained dry for most of the year. The splenic index ranged from 40 to 92 per cent in different localities. Extensive epidemics have been recorded from the highland districts, especially from the Dhala' and the Yafa'i country. Both *Plasmodium falcip-*

A 164 744 officers. Special delousing stations were established along the 3 main trade routes from Yemen to guard against the development of new foci.

H 164 743 744 The prevalence of the infection diminished during the summer months, but sporadic outbreaks were again reported in the winter of 1944-45. Early in 1945, a series of permanent dispensaries was organized in Western Aden Protectorate, and the tribal dressers in charge were trained to undertake mass dusting of the populace with DDT powder in the event of further epidemics. No outbreaks of typhus have been reported from the Protectorate since 1945, although the disease has continued to smolder in Yemen.

A 164 Murine typhus is probably endemic. Suspected cases have been observed in Aden hospitals from time to time, but the diagnosis has not been confirmed by laboratory diagnosis.

Plague. Six outbreaks of plague have been recorded from the Colony within the present century—in 1899-1900, 1903-04, 1904-05, 1913-14, 1917-18 and 1927-28. The most serious epidemics were those of 1904-05, involving 2,299 known cases, and of A [165] 1927-28, with 1,494 cases and a fatality rate of 74 per cent. In each outbreak the initial A 164 464 282 cases were detected among dock laborers employed in moving cargo or in loading or unloading coal. Since evidence of a preliminary rat epizootic was lacking, the local authorities concluded that the disease had been introduced by infected workers or by individuals carrying infected fleas. It was A [165] considered probable that the rat infection was secondary to the human. The morbidity rates almost invariably reached a peak in February or March, and declined with the onset of hot weather. No plague has been reported from the Colony since 1928, but the danger of its importation by means of dhow traffic from endemic ports in Africa H A 744 and the East is always present. The Medical and Health Department carries on an active rat control program, and examines significant numbers of captured rats each

year for evidence of plague. The disease has not been reported from the Protectorate.

Other Infections. Localized outbreaks of louse-borne relapsing fever have been recorded from the Protectorate, but no indigenous cases have been encountered in Aden. Cases of relapsing fever were frequently discovered at the time of the typhus outbreaks in 1944-45.

Occasional cases of kala-azar are seen in the Colony hospitals, usually among immigrants from Yemen. Two cases, in which the diagnosis of kala-azar was confirmed by spleen puncture, were recently reported from the Civil Hospital.[10] Both originated in southern Yemen, one from the vicinity of Ta'izz and the other from a village near the border of Western Aden Protectorate. Sporadic cases of Oriental sore are also treated in Aden, but the extent of infection in the interior is uncertain.

Cases suspected of being sandfly fever are common. The vector, *Phlebotomus papatasii*, is widely distributed. Guinea worm infection is endemic in the Hadhramaut and in certain coastal districts in the Protectorate. Imported cases are often observed in Aden Colony. Travelers from endemic centers in Africa thought to be suffering from yellow fever are sometimes admitted to the Colony hospitals, but no indigenous cases have been reported.

Nutritional Diseases

Undernutrition is prevalent, particularly among the immigrant laborers in Aden and the poorer villagers and the Bedouin in the interior. Few studies of the prevalence of nutritional diseases have been made, but, in view of the inadequate diet of large sections of the population, deficiency conditions are probably numerous, particularly as regards protein and vitamins C, A and riboflavin of the B complex. Rickets is common in the Protectorate, while minor symptoms of the disease were detected in 17 per cent of 264 schoolchildren examined in Aden township in 1945. Spongy gums, gingivitis and other signs of vitamin C de-

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H 744 Responsibility for the health of the people in the Colony resides in its Medical and Health Department, which is administered by a Director of Medical Services, with headquarters in Aden. There are no organised public health services in the Protectorate. Medical facilities are supported mainly by the British authorities in Western Aden Protectorate and by the local rulers in Eastern Aden Protectorate. As of A 743 1950, there were 4 hospitals, with an aggregate capacity of about 600 beds, in the Colony which served the local residents and accessible portions of the Protectorate. In addition, several government, mission or private dispensaries, 2 venereal disease treatment centers and a maternity and child welfare clinic were in operation. The Pro- A 743 tectorate facilities included 2 small hospitals, a child welfare center and 15 dispensaries in Eastern Aden Protectorate: 18 dispensaries in Western Aden Protectorate.

H A 312 Water supplies are scarce throughout this region, except in portions of the western highlands. The water supply for the Colony is derived from boreholes and treated by chlorination. Supplies in the Protectorate are obtained from streams, springs, wells A H 364 or rain-water cisterns. The methods of sew- 944 age disposal are primitive in the Colony, as well as in the Protectorate. Limited sanitary controls over the production and the distribution of foodstuffs exist only in THE COLONY.

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